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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/544,245

08/02/2005

Vincent Douglas

348-087

2635

1009

7590

01/09/2007

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EXAMINER

MAY, ROBERT J

ART UNIT

PAPER NUMBER

2875

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/09/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/544,245

Applicant(s)

DOUGLAS, VINCENT

Examiner

Robert May

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,3-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 August 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Objections***

Claim 15 is objected to because it recites identical structure as Claim 10.

Claim 16 is objected to because it recites identical structure as Claim 11.

Claim 32 is objected to because it recites the same structure as Claim 21.

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "flexible electronic pixel array is provided on both sides of the display member" as required by Claims 33 and 35, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering

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of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 5-6, 8, 10-11, 13, 15-16, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman in view of Kuroda.

Regarding Claims 1, 3 and 37 Freeman discloses in Figure 1, a display apparatus comprising a flexible display member 12 (Col 2, lines 21-22), comprising a flexible electronic pixel array (LCD using a filter having an array of pixels 86 Figure 10, Col 5, lines 65+), and a control unit 14, 18, 39 (power source 14, integrated circuit Col 3, lines 59-60, and buttons 18) provided at one end of the display member, and the display member 12 is in the form of a strip of a size suitable to be positioned around a limb of a user (watches or other wearable devices Col 1, lines 4-5). Freeman fails to disclose the display apparatus as being malleable. Kuroda discloses in Figure 10 a malleable thin metal band (which can be bent to conform with an arm of any person and can be bent

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repeatably Col 2, lines 68 through Col 3; lines 1-3; and Col 5, lines 3-8) that has adequate stiffness for maintaining its shape without clasps (as seen in Figure 10) for a wristwatch which obviates the need for extra components such as clasps making the device relatively inexpensive and easier to put on the wrist.

Regarding Claim 5, Freeman discloses the use of light emitting polymers (display can comprise light emitting polymer displays Col 3, lines 55-57).

Regarding Claim 6, Freeman discloses the display member as comprising a filter layer (Col 5, lines 65-67), and discloses in Figures 2A and 2B, a flexible wearable illuminating device comprising an anti-moisture covering 26, (Col 3, lines 1-10).

Freeman fails to disclose the display member having a rubber backing, and a thin strip of steel forming the malleable strip. However, Kuroda discloses in Figure 1, a rubber backing 6 (Col 3, line 67-68) to prevent the human body from being hurt from the ends of the metal plate (Col 4, lines 23-26) and a stainless steel material used as the malleable thing metal strip because it maintains its luster semi-permanently (Col 2, lines 10-15). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to back the metal plate of Freeman with the rubber backing and stainless steel metal strip of Kuroda so that the human body is not hurt from the ends of the metal plate and the metal band maintains its luster semi-permanently.

Regarding Claim 8, Freeman discloses in Figure 1, controls (buttons 18) are provided on the control unit 14, 18, 39.

Regarding Claims 10 and 15, Freeman discloses in Figure 6, the use of a timing circuit and the display member 12 is adapted to display time indicia to function as a watch (Col 5, lines 15-20).

Regarding Claim 11 and 16, Freeman discloses in Figures 6 and 10, a means for generating visual patterns on the display member 12 (numerical patterns and color patterns, Col 5, lines 65+, and graphical images Col 4, lines 12-15) and functions as an electronic bracelet (fits around a person's wrist, Col 2, lines 21-31).

Regarding Claim 13, Freeman discloses light emitting polymers on the display (display can comprise light emitting polymer displays Col 3, lines 55-57), but fails to disclose the display member as being bonded to the malleable strip. It would have been obvious to one of ordinary skill in the art at the time the invention was made to bond the electroluminescent display to the strip because bonding components using adhesives or the like is a very common method of assembly that can be used readily. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to bond the display to the malleable strip of Freeman because bonding is a very common method of assembly that can be readily used.

Regarding Claim 36, Freeman discloses a display apparatus with a sound sensor (piezoelectric microphone Col 2, lines 39-47).

Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman and Kuroda as applied to claim 1 above, and further in view of Samson (GB 2258134). Freeman fails to disclose the pixel array as being on both sides of the

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display member. Samson discloses in Figures 1A-1C a bracelet with display member 2B that is reversible wherein each side has a different design or color so a person would not be required to have a selection, to complement their attire, of different watches or straps which would be expensive (Pg 1, second paragraph). Furthermore the duplication of parts (i.e. the pixel array on both sides of the display member) has no patentable significance unless a new and unexpected result is produced *In re Harza*, 274 F.2d 669, 124 USPQ 378. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the pixel array on both sides of the display member so a person would not have to have a selection of different watches or straps in order to complement their attire.

Claims 4 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman and Kuroda as applied to Claim 3 and further in view of Broderick.

Regarding Claim 4, Freeman fails to disclose the malleable display member as a strip of thin metal or plastic which is initially axially straight and transversely concave. Broderick discloses in Figure 4 an armband that is made from thin plastic (Pg 3, lines 1-2) so as prevent moisture penetration and is axially straight and transversely curved (pg 2 lines 4-6) so that the arm band has a self coiling nature causing the armband to grip the arm of the wearer (Pg 4, second paragraph) without using any clasps. Therefore, it would have been obvious to one of ordinary skill at the time the invention was made to modify the display member of Freeman with thin strips that are transversely concave so

that the armband prevents moisture penetration and has a self-coiling nature without the use of clasps.

In regard to Claim 14, Freeman discloses light emitting polymers on the display (display can comprise light emitting polymer displays Col 3, lines 55-57), but fails to disclose the display member as being bonded to the malleable strip. It would have been obvious to one of ordinary skill in the art at the time the invention was made to bond the electroluminescent display to the strip because bonding components using adhesives or the like is a very common method of assembly that can be used readily. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to bond the display to the malleable strip of Freeman because bonding is a very common method of assembly that can be readily used.

Claims 7, and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman and Kuroda as applied to claim 1 above, and further in view of De La Huerga (6,255,951).

Regarding Claims 7 and 20, Freeman fails to disclose a control unit that is releasably secured to a distal portion of the display member. De La Huerga discloses in Figures 1-5, 10 a control unit (comprising transceiver, battery, and circuit board housed in element 204, Col 10, lines 37-42) which is releasably secured to a distal portion of a display member so that the display member can be disposed of and may be replaced to suit the user and the more expensive controller 204 can be sterilized and reused as a ID bracelet for a different patient in a hospital (Col 6, lines 9-16). Therefore it would have



been obvious to one of ordinary skill in the art at the time the invention was made to modify the display apparatus of Freeman with a control unit that is releasably secured to the display member of Freeman so that the display member can be disposed of and the more expensive controller can be sterilized and reused as a ID bracelet for a different patient in a hospital environment.

Regarding Claim 18, Freeman discloses in Figure 6, the use of a timing circuit and the display member 12 is adapted to display time indicia to function as a watch (Col 5, lines 15-20).

Regarding Claim 19, Freeman discloses in Figures 6 and 10, a means for generating visual patterns on the display member 12 (numerical patterns and color patterns, Col 5, lines 65+, and graphical images Col 4, lines 12-15) and functions as an electronic bracelet (fits around a person's wrist, Col 2, lines 21-31).

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman and Kuroda in view of Blotky. Freeman fails to disclose the controls in the form of touch sensitive areas. Blotky discloses a controller on a bracelet display comprising touch screens or buttons (pg 6, line12) so that the wearer can program the microprocessor (pg 5, lines 1-2). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the display member of Freeman with the touch sensitive areas of Blotky so the wearer can program the microprocessor.

Claims 21 and 27-28, 30-32, 34 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman in view of De La Huerga.

Regarding Claims 21, 27, 32 and 38 Freeman discloses in Figure 1, a display apparatus comprising a flexible display member 12 (Col 2, lines 21-22), comprising a flexible electronic pixel array (LCD using a filter having an array of pixels 86 Figured 10, Col 5, lines 65+), and a control unit 14,18,39 (power source 14, integrated circuit Col 3, lines 59-60, and buttons 18) provided at a distal end of the display member, and the display member 12 is in the form of a strip of a size suitable to be positioned around a limb of a user (watches or other wearable devices Col 1, lines 4-5). Freeman fails to disclose the display member as being readily removable from the control unit or the control unit releasably secured to the distal portion of the display member. De La Huerga discloses in Figures 1-5, 10 a control unit (comprising transceiver, battery, and circuit board housed in element 204, Col 10, lines 37-42) which is releasably secured to a distal portion of the display member so that the display member can be disposed of and may be replaced to suit the user and the more expensive controller 204 can be sterilized and reused as a ID bracelet for a different patient in a hospital (Col 6, lines 9-16). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the display apparatus of Freeman with a control unit that is releasably secured to the display member of Freeman so that the display member can be disposed of and the more expensive controller can be sterilized and reused as a ID bracelet for a different patient in a hospital environment.

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Regarding Claim 28, Freeman discloses in Figure 1, controls (buttons 18) are provided on the control unit 14, 18, 39.

Regarding Claim 30, Freeman discloses in Figure 6, the use of a timing circuit and the display member 12 is adapted to display time indicia to function as a watch (Col 5, lines 15-20).

Regarding Claim 31, Freeman discloses in Figures 6 and 10, a means for generating visual patterns on the display member 12 (numerical patterns and color patterns, Col 5, lines 65+, and graphical images Col 4, lines 12-15) and functions as an electronic bracelet (fits around a person's wrist, Col 2, lines 21-31).

Regarding Claim 34, Freeman discloses a display apparatus with a sound sensor (piezoelectric microphone Col 2, lines 39-47).

Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman and De La Huerga as applied to claim 21 above, and further in view of Samson (GB 2258134). Freeman fails to disclose the pixel array as being on both sides of the display member. Samson discloses in Figures 1A-1C a bracelet with display member 2B that is reversible wherein each side has a different design or color so a person would not be required to have a selection, to complement their attire, of different watches or straps which would be expensive (Pg 1, second paragraph). Furthermore the duplication of parts (i.e. the pixel array on both sides of the display member) has no patentable significance unless a new and unexpected result is produced *In re Harza*, 274 F.2d 669, 124 USPQ 378. Therefore it would have been obvious to one of ordinary

skill in the art at the time the invention was made to have the pixel array on both sides of the display member so a person would not have to have a selection of different watches or straps in order to complement their attire.

Claims 22-23, and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman and De La Huerga as applied to claim 21 above, and further in view of Kuroda.

Regarding Claims 22-23, Freeman fails to disclose the display apparatus as being malleable. Kuroda discloses in Figure 10 a malleable thin metal band (which can be bent to conform with an arm of any person and can be bent repeatedly Col 2, lines 68 through Col 3; lines 1-3; and Col 5, lines 3-8) that has adequate stiffness for maintaining its shape without clasps (as seen in Figure 10) for a wristwatch which obviates the need for extra components such as clasps making the device relatively inexpensive and easier to put on the wrist.

Regarding Claim 25, Freeman discloses light emitting polymers on the display member (display can comprise light emitting polymer displays Col 3, lines 55-57), but fails to disclose the display member as being bonded to the malleable strip. It would have been obvious to one of ordinary skill in the art at the time the invention was made to bond the electroluminescent display to the strip because bonding components using adhesives or the like is a very common method of assembly that can be used readily. Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to bond the display to the malleable strip of Freeman because bonding is a very common method of assembly that can be readily used.

Regarding Claim 26, Freeman discloses the display member as comprising a filter layer (Col 5, lines 65-67), and discloses in Figures 2A and 2B, a flexible wearable illuminating device comprising an anti-moisture covering 26, (Col 3, lines 1-10).

Freeman fails to disclose the display member having a rubber backing, and a thin strip of metal forming the malleable strip. However, Kuroda discloses in Figure 1, a rubber backing 6 (Col 3, line 67-68) to prevent the human body from being hurt from the ends of the metal plate (Col 4, lines 23-26) and a stainless steel material used as the malleable thing metal strip because it maintains its luster semi-permanently (Col 2, lines 10-15). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to back the metal plate of Freeman with the rubber backing and stainless steel metal strip of Kuroda so that the human body is not hurt from the ends of the metal plate and the metal band maintains its luster semi-permanently.

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman, De La Hueraga and Kuroda as applied to claim 22 above, and further in view of Broderick. Freeman fails to disclose the malleable display member as a strip of thin metal or plastic which is initially axially straight and transversely concave. Broderick discloses in Figure 4 an armband that is made from thin plastic (Pg 3, lines 1-2) so as prevent moisture penetration and is axially straight and transversely curved (pg 2 lines

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4-6) so that the arm band has a self coiling nature causing the armband to grip the arm of the wearer (Pg 4, second paragraph) without using any clasps. Therefore, it would have been obvious to one of ordinary skill at the time the invention was made to modify the display member of Freeman with thin strips that are transversely concave so that the armband prevents moisture penetration and has a self-coiling nature without the use of clasps.

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman and De La Huerga as applied to Claim 21 and further in view of Blotky. Freeman fails to disclose the controls in the form of touch sensitive areas. Blotky discloses a controller on a bracelet display comprising touch screens or buttons (pg 6, line12) so that the wearer can program the microprocessor (pg 5, lines 1-2). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the display member of Freeman with the touch sensitive areas of Blotky so the wearer can program the microprocessor.

### ***Response to Arguments***

In regard to the applicant's argument that Kuroda does not disclose a "malleable" member." The examiner disagrees, while Kuroda fails to explicitly use the term "malleable" Kuroda never the less discloses a metal member that can be bent to conform to a wearer's wrist without the use of connectors as shown in Figure 10 which is seen to be malleable.

In regard to the applicant's argument that the cited references do not disclose the added element "a flexible electronic pixel array", these arguments are moot in light of the new grounds of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert May whose telephone number is (571) 272-5919. The examiner can normally be reached between 9 am– 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax number for the

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organization where this application or proceeding is assigned is (571) 273-8300 for all communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval PAIR system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RM

12/28/06



RENEE LUEBKE  
PRIMARY EXAMINER